In the Claims

The following Listing of Claims replaces all prior versions in the application:

LISTING OF CLAIMS

1. (Currently Amended) A process for deterministic transmission of asynchronous data in packets issued by acquisition and processing systems, in the field of data acquisition and telemetry of flight testing installations, comprising the following steps:

storing numerical or digital telemetry data of the flight testing installation, conveyed on continuous and cyclic messages, issued by acquisition and processing systems which arrives in a totally asynchronous manner in FIFO registers,

packeting data from said FIFO registers in a first set of packets, in a first packeting cycle, according to a predetermined order with sorting and enhancement of these data, in multiple, non-selfsustained packeting modules,

receiving a request from the message composition module to the packeting modules when the message composition module needs a data packet;

after sending of a request by the message composition module, which controls the packeting cycles, ending said first packeting cycle in said packeting modules,

forwarding said first set of packets, regardless the state of completion of the first packeting cycle, to said message composition module, beginning a second packeting cycle for a second set of packets,

recovering said first set of packets by the message composition module, one packet after the other in a predefined order, to form a first message,

setting the first message in electrical format, in a formatting module, in a protocol used for the transmission to form an output message,

outputting said output message, by the output module on a transmission line, said method allowing synchronization of the start and end of packets in relation to their transmission in the output message, the timing cycle of data between the storing step and the outputting step being therefore controlled.

2.   (Currently Amended) A device for deterministic transmission of asynchronous data in packets issued by acquisition and processing systems, in the field of data acquisition and telemetry of testing installations, said device comprising:

at least one input module receiving ~~said~~ asynchronous telemetry data of a flight testing installation,

a plurality FIFO registers configured to receive data from the at least one input module;

a plurality of non-selfsustaining packeting modules connected to said FIFO registers,

at least one control module for FIFO register dump, monitored by at least one packeting module of said plurality of packeting modules,

a message composition module, which controls the packeting cycles, receiving the outputs of all packeting modules for composing a message therefrom, said message composition module configured to control the packeting cycle in sending to each of said plurality of packeting modules an order to terminate a packet assembly procedure regardless of whether said packet assembly procedure is completed, said order being a request received from the message composition module to the packeting modules when the message composition module needs a data packet;

a packet formatting module configured to format said message from said message composition module, and

an output module configured to transmit said message on a transmission line, the timing cycle of data between the input module and the output module being therefore controlled.

3.   (Previously Presented) The process of claim 1, further comprising conducting data acquisition and real-time processing for flight test installations of new airplanes.